EFFECT OF FOREIGN EXCHANGE MANAGEMENT ON ECONOMIC GROWTH IN NIGERIA (1987-2017)

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ABSTRACT: *The study investigated the effect of foreign exchange management on economic growth in Nigeria for the period of 1987 to 2017. Real exchange rate, inflation, degree of openness and foreign direct investment were used to determine the influence of foreign exchange management on economic growth proxied as real gross domestic product in Nigeria. The study employed unit root test was used to test the stationarity of the variables, the Auto Regressive Distribution Lag (ARDL) test to test for the presence of long run relationship among the variables, Error Correction model to show the rate at which short-run inconsistencies are being corrected and incorporated into the long-run equilibrium relationship. The result of the study found that real exchange rate has positive and significant effect on economic growth; inflation rate revealed a negative and insignificant effect on economic growth; degree of openness indicated positive and insignificant effect on economic growth and lastly foreign direct investment displayed positive and statistically insignificant effect on economic growth in Nigeria. It was concluded that foreign exchange management has positive and insignificant effect on economic growth under study review in Nigeria. The study recommended that investors should consider fluctuations in other macroeconomic variables rather than fluctuation in the exchange rate market to guide their decisions in order to ascertain where to direct investments for profit maximization. The study further suggested that government and the monetary authorities should design policies and programs that will curtail the rising inflation rate thereby encouraging investors to invest in Nigeria.*

KEYWORD: Foreign Exchange Management, Economic Growth, Real GDP, Nigeria

INTRODUCTION

The act of transacting local currencies for international currencies at varying exchange rates is referred to foreign exchange. Foreign exchange represents a component that is widely used on regular daily basis for settlement of foreign transactions and bills. The price of a home currency to another is called exchange rate. It represents the number of units of a given currency of a particular country that can be exchanged for unit of another currency (Oleka, Sabina & Mgbodile, 2014).

The concerns for achievement of a realistic exchange rate for the naira have continued to generate a great instigation to monetary policy formulators, owing to its unarguable significance in bringing about economic growth. This therefore explains in part why it is quintessential for any growth-conscious country to manage its foreign exchange. Oloyede (2002) opined that exchange rate relate to the price of one currency in terms of another, which is an important decision-making variable in every nation, thus making it a critical issue for any country desirous of development.

Foreign exchange management is described as a technique that involves the generation and disbursement of foreign exchange resources so as to reduce destabilizing short-term capital flows. The CBN monitors the use of scarce foreign exchange resources in order to ensure that foreign change allocation and utilization are in consonance with economic priorities and the foreign exchange budget (Fapetu & Oloyede, 2014).

No country is self sufficient, therefore developing countries of the world need to import raw materials and spare parts for the purpose of economic development, foreign exchange reserves for build-up is required to ensure that panic measures are not resorted to when foreign exchange receipts are dwindling (Fapetu & Oloyede, 2014). When there is disequilibrium in the foreign exchange market caused by inadequate supply of foreign exchange reserve, pressure may be exerted on foreign exchange reserves. If the reserves are not adequate, this may deteriorate into balance of payments problems. This therefore signifies the need to manage a nation's foreign exchange resources so as to reduce the negative effects of foreign exchange volatility (Obaseki, 1991).

In the process of managing the nation's foreign exchange, exchange rate management varies from time to time according to market dynamism. Between 1960 and 1986, the fixed exchange rate system was operated. The inability of the system to achieve the major objectives of exchange rate policy led to the reversal of the policy in September 1986 with the floatation of the Naira. The flexible exchange rate system was introduced between 1986-1993, a temporary halt to deregulation in 1994 when the official exchange rate was pegged and the reversal of policy in 1995 with the guided deregulation of the Foreign exchange market, through exchange rate liberalization and the institution of a dual exchange rate mechanism. The policy thrust of 1995 was retained in 1996 while the dual exchange rate system crisis was retained in 1997 and 1998. However, all official transactions, except those approved by the Head of State were undertaken in the Autonomous Foreign Exchange Market (AFEM). Thus, transactions at the pegged official exchange rate were relatively slimmer. Owing to market imperfections and to sustained instability in the exchange rate of the Naira, the AFEM was replaced with an Inter-bank Foreign Exchange Market (IFEM) in October 1999 after an initial period of co-existence (Onyeizugbe & Umeagugesi, 2014).

In the IFEM, a two-way quote system is expected to prevail while the market as conducted daily in dispensation, oil firms were allowed to keep their foreign exchange in banks of their choice against the CBN. The CBN has continued to fine tune the IFEM to make it more effective and efficient. Early in 2002, Thomas look was granted permission to transact foreign exchange business on travellers cheques in Nigeria. This is intended to deepen the foreign exchange market and reduce the undesirable impact of the parallel market (Fapetu & Oloyede, 2014).

The need for foreign exchange arises only within the framework of countries engaged in international trade, in contrast to a closed economy, whose scope does not transcend its intra-country trade transactions. This therefore makes this economic issue pertinent in a bid to ensuring a guaranteed growth for the country, owing to the fact that majority of the country's raw materials for manufacturing purpose are imported coupled with the fact that Nigeria is the 6th largest oil producing country.

An examination of literature on foreign exchange management indicates that most studies are on exchange rate volatility and its impact on macro-economic indices. Where the study is not

on volatility of exchange rate, it involves uncertainty in foreign exchange market on the domestic output of nations macro-economic and institutional factors impact on stock market indices, development of government bond markets, on alternative wage-setting regimes, exchange rate and inflation, exchange rate volatility, stock prices and lending habits of banks. This study thereby observed that amidst numbers of existing literature put together by prominent scholars (Ndu-Okereke & Nwachukwu, 2017; Amassoma & Odeniyi, 2016; Obi, 2017; Adegbite & Owolabi, 2017; Obi, Oniore & Nnadi, 2016; Okorontah & Odoemena, 2016; Lawal, 2016; Onyeizugbe & Umeagugesi, 2014; Oleka, Sabina & Mgbodile, 2014; Fapetu & Oloyede, 2014; Adegbite & Owolabi, 2012) to mention but a few on exchange rate in Nigeria, very few studies have investigated the effect of foreign exchange management on economic growth in Nigeria. This study is designed to ascertain whether the exchange rate promote export performance, whether exchange rate has any bearing on Nigerians economic growth and development, to know the contributions of the deregulation in the Nigerian economy, it also seeks to show whether the achievement will continue to increase the development of the economy or not.

The main thrust of the study is to examine the effect of foreign exchange management on economic growth in Nigeria between 1987-2017. The specific objectives of the study are to; investigate the effect of exchange rate on economic growth in Nigeria; ascertain the effect of inflation rate on economic growth in Nigeria; evaluate the impact of degree of openness on economic growth and establish the extent to which foreign direct investment influence economic growth in Nigeria.

LITERATURE REVIEW

Foreign Exchange Management

Foreign Exchange refers to the financial transaction where currency value of one country is traded into another country's currency. The whole process gets done by a network of various financial institutions like bank, investors and government (Owolabi & Adegbite, 2012).

Foreign exchange management is described as a technique that involves the generation and disbursement of foreign exchange resources so as to reduce destabilizing short-term capital flows. Consequently, in order to ensure that foreign change allocation and utilization are in agreement with economic priorities and the foreign exchange budget, the CBN monitors the use of scarce foreign exchange resources. For most developing countries that need to import raw materials and spare parts for the purpose of economic development, foreign exchange reserves, for build-up is required to ensure that panic measures are not resorted to when foreign exchange receipts are dwindling. When there is disequilibrium in the foreign exchange market caused by inadequate supply of foreign exchange reserve, pressure may be exerted on foreign exchange reserves. If the reserves are not adequate, this may deteriorate into balance of payments problems. There is therefore, the need to manage a nation's foreign exchange resources so as to reduce the adverse effects of foreign exchange volatility (Obaseki, 1991).

According to Obadan (2006), exchange rate reform under SAP was aimed at setting an appropriate value for the naira through the market system in order to encouraged non-oil exports, increase capital inflow, and curtail demand for import. It was expected that the

exchange rate reforms, with the supportive fixed and monetary policy measures, would help to diversify and export base of the economy. Obadan argues further that the depreciation of the Naira fuelled inflation, raised the cost of domestic production and consequently, raised the prices of finished products. The increase in the prices of goods resulted in low aggregated demand, huge prices of Nigerian exports. One factor that reinforced this position was that a substantial part of the high prices was imported from abroad, since many of our raw materials are imported.

On the other hand, the emergency of synthetic substitutes for products like cotton, rubber, palm oil, and hides and skins worsened the demand for these commodities in the world market. Following the adoption of floating exchange rates in the developing countries in 1973, the issues of whether exchange rate changes and uncertainties have an independent unfavourable effect on trade has generated an intense in studies. The introductions of Structural Adjustment Programmes (SAP) in many of the developing countries and the attendant liberalization of exchange rate have further brought the discussion of this issue into sharp focus.

According to Stanley (2007), the management of exchange, especially the floating exchange rate is a positive tool in the hands of government policy makers because it can be used to achieve internal and external balance of payment equilibrium, thus aiding more flexibility in the use of monetary and fiscal policy. On whether exchange rate has any impact on the economic development of a country, the author believes that in an increasingly and trade, foreign exchange means the flow of scarce foreign reserves and goods across borders. It will therefore, inevitably has an impact on the development of a country. On whether those impacts on the development of a country will be positive or negative depends on how the foreign exchange is managed and other peculiar economic condition of that country.

Stanley (2007) further asserts that the globalization of international trade have tied world commodity and capital markets even more tightly together and this have acted to reduce the effect of national economic policy on the management of exchange rate stability. He concluded that given these conditions, the use of the floating exchange rate as opposed to the fixed exchange rate is the best option in cushioning the effect of fluctuating exchange rate on the economic development of a country.

According to Lipson (2009), the exchange rate of a country's currency fluctuates because of changes in demand or supply in the foreign exchange market. He asserted that these changes in the demand and supply are in turn caused by differing rates of inflation, capital movement between countries, and structural changes in the economy, Lipsey also states that the continuing downward depreciation of the exchange rate of a country's currency will in the long run have a negative impact on domestic economic development because depreciation leads to a general price rise of both imported and locally produced goods and services.

In Nigeria, Ajayi (2008) and Osagie (2005) argue that exchange rate devaluation have no significant effect on the external trade balance because of low price elasticity generally associated with the excess import and export demand functions. There study agreed with Ojo (2008) who implies that exchange rate changes need not play any significant role in the explanation of Nigeria's import export balance. Obaseki (2001) opines that naira exchange rate fluctuation or depreciation vis-à-vis other currencies is not as problematic as the existence of many different exchange rates such as the official rate, the inter-bank rate and

the autonomous or the black market operators and other agents would try to purchase and hoard foreign exchange from one market with the hope of selling it at higher return in another market later.

This practice, in his view, destabilizes the foreign exchange market and its responsible for the foreign exchange crisis in Nigeria faced in the 1980's. He advocated for the promotion of exchange rate convergence, i.e. the attainment of a single market determined exchange rate for the whole economy as this promote general price stability, sustained economic growth and development (Bateman, 2003).

Taiwo (2000), however, investigated the determination of non-oil exports supply for Nigeria. He disaggregated non-oil exports into two categories – agriculture and manufacture. The supply function of the two categories has three arguments; relative prices, capacity output and oil revenue. While the first two variables were positively related to export supply, the third variables (oil revenue) had an inverse relationship with it. The last result confirms the existence of the Dutch disease, since the oil boom in the Nigerian Economy, a phenomenon which has been widely documented in literature.

Empirical Review

Fapetu (2013) examined the relationship between foreign exchange and the Nigerian economic growth using the annual data for the period of 1960 to 2012. Employing ordinary least square technique, the result shows that exchange rate accounted for 99% variation in economic growth.

Oleka, Sabina and Mgbodile (2014) establish the impact of foreign exchange rate on the growth of Nigerian economy for the periods of 2000 to 2014. Gross domestic product is used as dependent variable indicating economic growth of Nigeria while independent variables proxied as money supply, inflation rate, employment rate and foreign exchange rates were used as foreign exchange indicators. Multiple regression models are used and the result reveals that there is variation on money supply and naira exchange rate; hence the monetary policy instruments were not efficacious in the attainment of price and exchange rate stability in Nigeria. Again, growths in money supply impact negatively on the economy as they breed inflation and there are significant relationships among M_1, real exchange rate, unemployment rate and inflation rate. The study therefore recommends that monetary authorities should endeavour to come up with macroeconomic policy that is capable of putting the economy back on a path of sustainable and non-inflationary position.

Fapetu and Oloyede (2014) investigate foreign exchange management and the Nigeria economic growth from 1970 to 2012. The ordinary least square, Johansen cointegration and the error correction model (ECM) framework were employed. The result shows that export and foreign direct investment are statistically significant in determining economic growth. However, exchange rate, import and inflation are found to be statistically non significant. The study recommends that government should increase the consumption of locally made goods in order to increase foreign exchange earnings.

Obi, Oniore and Nnadi (2016) examine the relationship between exchange rate regimes and output growth in Nigeria in different periods from 1970 to 2014. The study employs the Generalized Method of Moments (GMM) to estimate economic growth equation as a result of endogennity problem. The findings suggested that fixed exchange rates constrain the

performance of the Nigerian economy as real exchange rate depicts inverse relationship with economic growth during the whole period and period of fixed exchange regime.

Amassoma and Odeniyi (2016) centered their study on the nexus between exchange rate variation and economic growth in Nigeria using an annual data of forty-three (43) years covering the period (1970–2013). The study made use of multiple regression model, Augmented Dickey Fuller (ADF) test, Johansen cointegration test and the Error correction model (ECM) test. The study establishes that there exists a positive but insignificant impact of exchange rate fluctuation on Nigerian economic growth in both the long run and short run. The study recommends that there is need to encourage domestic production of goods and services for Naira exchange rate appreciation.

Okorontah and Odoemena (2016) investigate the effects of exchange rate fluctuation on economic growth of Nigeria. Using annual data for the period 1986-2012, the study employed the ordinary least square (OLS) technique, the Johansson co-integration test and the error correction mechanism (ECM). The result suggested that there is no strong relationship between exchange rate and economic growth in Nigeria. It is therefore suggested that Nigeria improve its competitive capacity in the international market through export diversification.

Lawal (2016) analyzes the effect of exchange rate fluctuations on manufacturing sector output in Nigeria from 1986 to 2014. Data on manufacturing output, Consumer Price Index (CPI), Government Capital Expenditure (GCE) and Real Effective Exchange Rate (EXC) were sourced from Central Bank of Nigeria and analyzed through Autoregressive Distribution Lag (ARDL). The study discovers that exchange rate fluctuations have long run and short run relationship on manufacturing sector output. The result shows that exchange rate has a positive effect on manufacturing sector output but not significant. The study recommends that government should strategize to encourage exports and discourage imports in order to achieve a favourable balance of payment.

Hock-Tsen and Hock-Ann (2016) evaluate the effect of exchange rate volatility on disaggregated bilateral exports of manufactured goods to China. Exchange rate volatility is estimated by the threshold generalized autoregressive conditional heteroscedasticity (TGARCH) model. The Johansen cointegration method and the dynamic ordinary least squares (DOLS) estimator were used in the estimation. The result reveals evidence of significant exchange rate volatility effect on real exports.

Sani, Hassan and Azam (2016) review empirically the effect of exchange rate volatility on the output level of the five English speaking countries in ECOWAS, namely Nigeria, Ghana, Gambia, the Sierra Leones and Liberia, over the period 1991 to 2014. Co-integration test and error correction modelling were used as estimation techniques. Estimates of co-integration relations were obtained and the short-run and long-run dynamic relationships between the variables were obtained for each country utilizing the tests. In general, exchange rate volatility has a significant impact on outputs at least for all the countries considered in the study, with all except Liberia having negative impact.

Drama (2016) provides an empirical evidence on the nexus between foreign exchange reserves and inflation for four West African countries namely Cote d'Ivoire, Senegal, Ghana and Nigeria. A comparison of empirical evidence is obtained from the Autoregressive

distributive lag model (ARDL) using annual data running the period of 1972 to 2014. The empirical result shows that the nexus between the change in foreign exchange reserves and inflation rate is positive for the countries in long run but the overall short run estimation of the model is insignificant at the conventional level. This means that rise in foreign exchange reserves leads to increase the rate of inflation. The study suggested that governments should pay more attention to foreign exchange system management by enlarging open market operations.

Obi (2017) investigates the influence of foreign exchange volatility on foreign direct investment in Nigeria from 1999- to 2016. Ordinary least square was used to estimate the partial coefficients of the independent variables. The finding from the study reveals that fluctuations in exchange rate have a positive and significant influence on foreign private investment in Nigeria which supports the argument that FDI investment in Nigeria is determined by exchange rate as well as technology, entrepreneurial skills, source of capital an overall.

Ndu-Okereke and Nwachukwu (2017) studied the effect of exchange rate fluctuations on the Nigerian economy. Employing the use of vector auto regression (VARs) models on the time series data, the result revealed that supply of foreign exchange has a positive and significant relationship with output level of Gross Domestic Product while the demand for foreign exchange has a negative relationship with gross demand product. The study recommended an aggressive expansion of the Nigerian economy especially investment in the agricultural and manufacturing sectors of the Nigerian economy.

Adegbite and Owolabi (2017) examined the effects of foreign exchange rate and foreign trade on economic growth in Nigeria. Secondary data were obtained from central bank of Nigeria statistical bulletin covering the period of 1970 to 2015. Multiple regressions were employed to analyze data on such variables Gross Domestic Product (GDP), foreign exchange rate, import, export, trade openness, and inflation rate were all found to have significant effects on the Economics Growth with the Adjusted R^2 of 0.9468% (approximately 95%). Based on the finding, it was concluded that foreign trade (proxied by import and export) have positive significant impact on economic growth in Nigeria. But exchange rate has positive significant impact on export but has negative significant effect on import. The study recommends that government should put all things together by enabling a business environment to stimulate foreign trade.

RESEARCH METHOD

The study considers the usage of ex-post facto research design. The model of Obi, Oniore and Nnadi (2016) was adapted with modifications. The model for the present study is stated as;

$$RGDP = f(RER, INF, FDI, DOP) ------------------------- 3.1$$

$$lnRGDP = \alpha_0 + \alpha_1 lnRER_t + \alpha_2 lnINF_t + \alpha_3 lnFDI_t + \alpha_4 lnFDI_t + U_t ------3.2$$

Where:

RGDP = Index of Gross Domestic Product (Real GDP) expressed in constant term; *RER* = Real exchange rate; *INF* = Inflation rate; *FDI* = Foreign direct investment; *et* = error term

The study used Autoregressive Distributed Lag model (ARDL) econometric tool in analyzing the relationship between foreign exchange management and economic growth in Nigeria.

RESULT AND DISCUSSION

Unit Root Test (ADF)

Variables	Test statistics	Critical value	Order of Integration
RGDP	-5.931529	-3.574244	I(1)**
RER	-6.886162	-4.416345	I(0)***
INF	-3.295365	-2.998064	I(0)**
DOP	-5.939170	-3.574244	I(I)**
FDI	-3.680266	-2.998064	I(0)**

*Note: * (**) (***) denotes null hypothesis at 10%, 5% and 1% level of significant respectively*
Source: E-view 9.0 (2018)

The result of the table shows that real exchange rate, inflation and foreign direct investment attained stationarity at level and at 1% and 5% level of significance respectively. Real gross domestic product and degree of openness variables attained stationarity level after differencing i.e. at first difference and at 5% level of significance. The economic implication of this is that any shock or disturbance (e.g. government policy) passes to the variables will not be sustained for a long period of time meaning such shock will die off in a short while. Since there are mixtures of I(0) and I(1) variables. Autoregressive Distributed Lag model (ADRL) will be adopted and bound test will be used to capture the presence of cointegration as against Johansen cointegration.

ARDL Bound Cointegration

NULL HYPOTHESIS	F - STATISTIC	CRITICAL VALUES BOUNDS		
		Significance	Lower Bound	Upper Bound
No long-run relationships exist	14.15116	10%	3.03	4.06
		5%	3.47	4.57
		2.5%	3.89	5.07
		1%	4.4	5.72

Source: E-view 9.0 (2018)

The result of the table revealed that the F-statistics of 14.15116 is greater than the Upper Bound table value at any % level of significance. The study rejects the null hypothesis. This is interpreted as there is long-run relationship among the variables, that is, the variables co-move on the long run. This implies that study can proceed further to the long run analysis and the short-run dynamic and error correction analysis.

Long and Short Run Estimation Coefficients

The below table explains the long-run relationship among the variables

Variables	Coefficient	Standard Error	Probability
RGDP	4.901337	1.562953	0.0518
RER	18.086543	5.121824	0.0026
INF	-0.648185	0.920509	0.5321
DOP	0.417833	0.486235	0.4533
FDI	0.202509	0.402362	0.6494

Source: E-view 9.0 (2018)

The result of the table indicated that the coefficient of real gross domestic product is positive and statistically significant. This implies that if all the variables are held constant, real gross domestic product will increase by 49%. The coefficient of real exchange rate is positive and statistically significant which shows the existence of a positive and significant long run relationship between real exchange rate and economic growth in Nigeria. A percent change in the real exchange rate will bring about 18. 08% increases in real gross domestic product.

The coefficient of inflation rate revealed a negative and statistically insignificant relationship with economic growth. Hence, a unit increase in inflation rate will further decrease economic growth by 64%. Furthermore, the coefficient of the degree of openness indicated positive and insignificant result, by revelation this implies that 1% increase in degree of openness will lead to 41% increase in economic growth in Nigeria.

The coefficient of foreign direct investment positions a positive and statistically insignificant relationship with real gross domestic product. As a result, 1% increase in the foreign direct investment will increase the real gross domestic product by 20% change

The Short-run Dynamic and the Error Correction Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(RGDP)	0.704243	0.125880	5.594539	0.0000
D(RER)	13.586237	3.260591	4.166801	0.0006
D(INF)	-0.520017	0.261589	-1.987916	0.1410
D(DOP)	0.886427	0.053639	16.525700	0.0005
D(FDI)	0.061937	0.064031	0.967298	0.4047
ECM(-1)	-1.388651	2.429396	-0.571603	0.0046

Source: Author's Computation, (2018).

The result in the above table indicates that the coefficient of the error correction term ECM(-1) has the correct sign and significant at 5% level. The value of the coefficient is -1.388651. The result shows that about 13.88% of the short-run inconsistencies are being corrected and incorporated into the long-run equilibrium relationship in each period.

The coefficient of real exchange rate depicts significant positive effect on economic growth, hence 1% change in real exchange rate will yield to about 13.58% in economic growth. The significant result of real exchange rate is in relationship with the longrun result. Inflation postulates a negative and insignificant effect on economic growth by 52% change decrease. Degree of openness reveals a significant positive effect on economic growth which implies that 1% change in degree of openness will bring about 88% increase in economic growth. Foreign direct investment reveals an insignificant positive relationship with economic growth, therefore 1% increase in foreign direct investment will increase economic growth by 6%.

Autocorrelation Test (Breusch-Godfrey Serial Correlation LM Test)

F-statistic	2.193582	Prob. F(2,1)	0.4308
Obs*R-squared	21.98809	Prob. Chi-Square (1)	0.3012

Source: E-view 9.0 (2018)

The null hypothesis is that, there is no autocorrelation in the error terms versus it alternative hypothesis of serial dependence among the error terms. The F-statistics in the result of the autocorrelation test has a probability value of 0.4308 (43.08%) which is greater than 5% level of significance, hence the null hypothesis of no autocorrelation is accepted, the result of this analysis is reliable and free from serial error correlation.

Heteroscedasticity Test (ARCH)

F-statistic	3.640802	Prob. F(1,30)	0.0684
Obs*R-squared	3.424678	Prob. Chi-Square(1)	0.0642

Source: E-view 9.0 (2018)

The null hypothesis is that, there is homoscedasticity of variance against its alternative of heteroscedasticity of variance. The F-statistics in the result has probability value of 0.0684 (6.84%) which is greater than 5% level of significance, hence the null hypothesis of homoscedasticity is accepted, therefore the result of this analysis is reliable and free non constant variance.

Stability Test (Ramsey RESET Test)

Null hypothesis	Probability
The model is fit	0.1962

Source: E-view 9.0 (2018)

The null hypothesis is that, the regression model fit the data well versus its alternative hypothesis of invalid regression model. The F-statistics in the result has a probability value of 0.1962 (19.62%) which is greater than 5% level of significance, hence the null hypothesis that the regression model fit the data well is accepted, hence the parameter estimate in this model are stable over time.

Normality Test
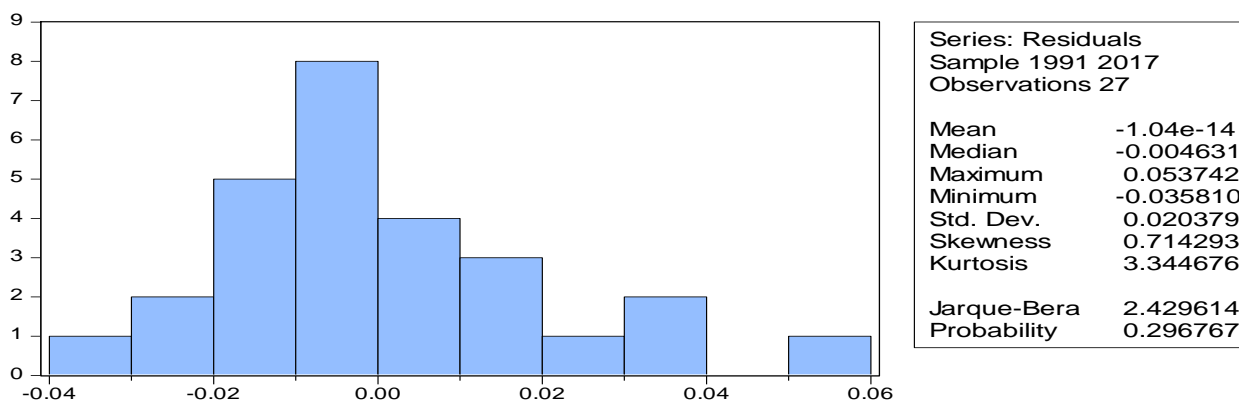
Source: Authors Regression Output, (2018)

The assumption of the OLS estimate and statistical inferences of the ARDL estimation technique adopted is based on normality. Violation of the normality assumption may render the outcome of the regression analysis invalid though this is not strictly the case unless forecasting is the main objective of the modeling and also OLS estimate is consistently estimated and normality will hold asymptotically. The normality assumption is tested for using the residual from the regression result. The probability value of the Jarque-Bera statistics in the Figure 1 above has the value of 0.296767 (29.6767%) which is greater than 5% level of significance, hence the null hypothesis of normality is accepted, and therefore the residual of this analysis is normally distributed.

DISCUSSION AND IMPLICATION OF FINDINGS

According to the empirical findings, the Augmented Dickey-Fuller (ADF) unit root test reveals that there is mixed I(0) and I(1) unit root stationarity in the result. Hence, Pesaran ARDL bound test was used to test for the presence of cointegration among the variables as it

suits this study and the result showed an evidence of long run relationship among the variables.

The study reveals that there is long run relationship between foreign exchange management and economic growth. From the result of the ARDL long-run cointegrating coefficient, study reveals that the coefficient of real gross domestic product is positive and statistically significant. This implies that if all the variables are held constant, real gross domestic product will increase by 49%. The coefficient of real exchange rate is positive and statistically significant which shows the existence of a positive and significant long run relationship between real exchange rate and economic growth in Nigeria. A percent change in the real exchange rate will bring about 18. 08% increases in real gross domestic product. This implies that depreciation of the currency in Nigeria stimulate economic activities during the period of exchange rate deregulation regime and it is in consonance with the aspirations of policy makers in the adoption of exchange rate reforms. This finding goes to justify the deregulation of the exchange rate embarked upon by the Federal government in 1986. Interestingly, the finding is in line with Obi *et al* (2016) who concluded a significant positive effect of real exchange rate on economic growth.

The result of inflation rate reveals a negative and statistically insignificant relationship with economic growth, this implies the existence of negative and insignificant long run relationship between inflation rate and real gross domestic product. Hence, a unit increase in inflation rate will further decrease economic growth by 64%. Inflation which measures the changes in the general price level impacts on growth by influencing savings, consumption and investment. Macroeconomic theories have confirmed that the general price level in an economy is a determinant of economic growth. The implication of the finding is that the Nigeria economy will be experiencing continuous and consistent rise in general price resulting in high inflationary trend and devaluation in the value of naira. This rise in price will in turn provoke labour into further agitation for wage increase. This is what the monetarists termed 'cost push inflation'. This finding is in connection Oleka and Okolie (2016), that high inflation rate impacts negatively on economic growth in Nigeria.

The result from the study further reveals that the degree of openness indicated positive and insignificant result, by revelation this implies that 1% increase in degree of openness will lead to 41% increase in economic growth in Nigeria. The insignificant positive effect of openness indicates that the recent trade liberalization efforts in Nigeria have not resulted in better economic growth and benefited the poor. Most often, the export volume is dominated by crude oil whose price and quantity are determined in the international market and has little or no relation with economic reality in the Nigerian economy. In the case of imports, the volume is skewed towards semi-processed goods deceitfully packed as raw materials when being imported; this hindered the development of the local industries which simultaneously hinder speed economic development in the country. This result validates the study of Obi *et al*, (2016) who concluded an insignificant positive relationship between degree of openness and economic growth in Nigeria.

The coefficient of foreign direct investment will post a positive and statistically insignificant relationship with real gross domestic product. This shows that there is positive and insignificant long run relationship between foreign direct investment and real gross domestic product in Nigeria. A percent increase in the foreign direct investment will increase the real gross domestic product by 20% change. The insignificant contradicts the conclusion of Egbo

(2010) who concluded a positive and significant relationship between FDI and economic growth. The reason for the non-conformity with Egbo (2010) could be attributed to the unsuitable and disadvantageous macroeconomic environment in Nigeria, like the general price level, interest rate, exchange rate etc. However, this result is in connection with Ugochukwu, Okoro and Onoh (2013) who concluded insignificant positive relationship between inflation rate and economic growth.

The result of the short run depicted positive and significant between real exchange rate and economic growth as obtained in the longrun test. Inflation postulated a negative and insignificant effect on economic growth as obtained in the longrun. More so, degree of openness revealed positive significant in the short run against the insignificant it recorded in the long run. The result of foreign direct investment conformed to the positive and insignificant effect as recorded in the long run. Also, there was evidence that disequilibrium in real GDP is restored back to equilibrium within a year if there is any short run fluctuation in the explanatory variables because the coefficient of the ECM was significant with the correctness of its sign though with small magnitude. Diagnostic test revealed that the model used in this study passed the test of autocorrelation, heteroscedasticity, instability and non-normality. This signifies that the result from the findings can be used by the researcher and the policy makers for recommendation and forecasting. The study is in consistence with the study of Fapetu and Oloyede (2014) and Amassoma and Odeniyi (2016) who concluded that foreign exchange management impacted positively on economic growth in Nigeria.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Collectively, a healthy and vigorous economy will strengthen its currency to be demanded for worldwide. Such value can be displayed by the degree of active productivity of an economy. Larger productivity in an economy will adequately enhance the value of its currency (Oleka *et al*., 2014). Its effects are more prominent if the increase is in the traded sector. Unlike Nigeria naira that lagged behind and at compassion of dollar, pound and euro, Chinese YUAN is waxing stronger and stronger in the foreign exchange market because of increasing productivity recorded in China. The estimated result emanating from the analysis and discussion section of this study indicated that the variables considered in the model are stationary both at level and first difference respectively and have long run co-movement.

The findings of the study records that real exchange rate has positive and significant effect on economic growth; inflation rate reveals a negative and insignificant effect on economic growth; degree of openness indicates positive and insignificant effect on economic growth and lastly foreign direct investment displays positive and statistically insignificant effect on economic growth in Nigeria. Relating these findings to the submission of Fapetu and Oloyede (2014) it is obvious that foreign exchange management does affect economic growth owing to the fact that the key control variables; real exchange rate, degree of openness and foreign direct investment are found to positively affect the Nigerian economic growth. Also, interestingly in this study is the fact that the response of RGDP to policy initiatives on foreign exchange management takes slowly take cognizance of the adjustment of the variables to yield long run result with the 13.88% recorded as the Error Correction Coefficient.

In conclusion, the study concludes that foreign exchange management has positive and insignificant effect on economic growth under study review in Nigeria. The result is in connection and in consistence with the study of Amassoma and Odeniyi (2016) who concluded a positive and insignificant relationship between exchange rate and economic growth in Nigeria.

Recommendations

The study proffers the following recommendations;

i. Investors should consider variations in other macroeconomic variables rather than variation in the exchange rate market to guide their decisions in order to ascertain where to direct investments for profit maximization.

ii. The monetary authorities should design policies and programs that will curtail the rising inflation rate thereby encouraging investors to invest in Nigeria.

iii. The Nigerian government should facilitate an investment friendly environment, enhance investors legal protection, streamline procedures for business visas and entry of foreign workers and reform land policy.

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